**IT Applications Unit 3, AOS 1, Online Communities**

Complete the following, from Chapter 2, Problem-solving Methodology, pgs, 60-80

**Problem-solving Methodology: 4 Stages**

**Analyse**

**Design**

**Development**

**Evaluate**

**Case Study:**

**Indigenous Language Trust, (ILT)**

Using the case study, ILT complete the following:

**Analysis of the problem**

This stage involves the following three steps:

1. **Determining the solution requirements**
2. What needs to be established?

To determining the solution requirements you need to understand what the problem is hence establishing what information is needed to be provided, what data is required and what functionality must be included in the web solution. Therefore for the ILT case, the information from the various offices is required to be provided for inclusion in the document.

1. How is the problem best defined?

To define something you need to describe with clarity and precision what it is, hence in this case you should create a short statement and then alter it into a question that the answer directs to a desired course of action. Therefore in this case you might start with ‘the ILT requires a method to be produced that will enable data sharing over various sites’ hence ‘what method best suits the requirements to share the information’

1. The aim of problem analysis is to ensure that the problem is clear enough to effectively analyse it and efficiently solve it. Define these two terms, efficiency and effectiveness.

Efficiency is in terms of time, cost and effort whereas effectiveness is the quality of the data that is provided.

1. What type of organisation is the ILT?

The ILT is a not for profit community group

1. In your own words, define the problem for ILT.

The problem of ILT is best defined starting with ‘the ILT requires a method to be produced that will enable data sharing over various sites’ hence ‘what method best suits the requirements to share the information with minimal effort across various physical sites’

1. Identifying data and information needed for the solution, p 62;
   1. Need to identify where data is coming from for online community – inside or outside

For this situation the information is coming from internal of the organisation however it may be considered from an external source as it is being sent from the various offices.

* 1. In the ILT case study what is the information needed for the solution?

For the situation it is required that various contacts, policy document and other documents including history, audio/visual ect and information on stats ect.

1. Identifying the functions needed for the online community solution, p 63
   1. The functions needed for online communities can be separated into 2 distinct categories,
      * how the solution functions and
      * attributes of the solution. List the characteristics of each of these.
2. What are the functions of the ILT website solution?  
   the functions for the solutions functionality include;

* Store the knowledge
* The need to broadcast the information stored
* Then exchange the information

Then with the attributes of the solution;

* It will need to be user friendly and hence easy to use
* The solution needs to be of a high quality however it isn’t required to be critically reliable as it **won’t** be a site that is relied on by many, daily.
* The solution will not require mobility however you could make the page by have it have 2 versions ect.

1. **Identify the constraints on the solution, p 64**
   1. List the technical and non-technical constraints.

Some of the technical constraints are

* Cost of solution, ie if they utilise a free provider for a website or other software (like facebook or wordpress) or go down a subscription base like dreamweaver)
* The speed or time it takes to access information for example if you were using dialup you would upload or download video files (as an example of extremity to show the meaning), likewise it would make it reasonable to restrict large files from automatic download on open.
* Security required for example will there be a need for open and closed pages
* Number of people accessing the online community at once hence the required capabilities.
* Manageability

However there is also non-technical such as

* Issues of privacy of the information exchanged
* Issues of the copyright with what your posting and have you referenced all material.
  1. What are the constraints on the ILT solution?

Therefor constraints for the ILT solution revolve around both types such as;

* As a non-profit organisation cost is a distinct issue causing a free alternative to be more appropriate
* Speed doesn’t seem to be a issue as located in a town, however it should remain a aim to keep it as low as possible to reduce costs in various areas including usage, storage size, potentially within the storage requirements of the free website/software.
* Security being required to enable open and closed pages to occur
* Also it will require to be easy to manage as the creator of the system at the start is likely to step out once a member, has gained sufficient knowledge in how to work it.
* Another thing to consider is that some content provided and users using the online community will want to protect the identity and other privacy issue content
* Lastly infringement of copyright is a possibility with some words in the aboriginal language may be copyrighted or methods used to preserve the language and other documents origins may have an existing copyright.
* Also protocols with the use of imagery of deceased need to be followed

1. **Determine the scope of the solution, p 66**
   1. What needs to be considered in the scope of the solution?

The scope of the solution will require the efficiency (time, cost, effort) of the production to be analysed, optimised and adhered to. While the effectiveness (quality, relevance, timeliness, completeness) need to kept reasonable high.

* 1. In the ILT case study list the benefits or the scope of the solution in terms of
     1. Efficiency and

Efficiency’s benefits are evident to the business when it is considered that less time will be spent on constructing and distributing emails and other document exchanging methods. This in turn lowers the cost as less mistakes are made and less time is spent increasing productively hence meaning more productive outcomes can be reached with less steps that need to be taken, lowering cost as and increasing the income. Lastly it lowers the effort required, potentially increasing the quality of both it and the consecutive projects carried out, this may occur through the use of templates ect.

* + 1. Effectiveness

Effectiveness’s benefits are shown through higher quality decisions being made due to sound and timely information being provided, hence ensuring that the information is relevant and complete as of that time.